

Original Article

GOVERNANCE THROUGH DIGITAL PROCUREMENT: AN EMPIRICAL STUDY OF MSME ENGAGEMENT ON GOVERNMENT E-MARKETPLACE (GEM) IN INDIA

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ABSTRACT

The digitalization of public procurement has emerged as a critical governance reform in India, with the Government e-Marketplace (GEM) positioned as a central platform for enhancing transparency, efficiency, and inclusivity. This study examines the perceptions of Micro, Small, and Medium Enterprises (MSMEs) regarding the E-procurement ecosystem in India, with a specific focus on their engagement with GEM. Anchored in the Diffusion of Innovation Theory and Good Governance Theory, the research explores how digital procurement platforms influence governance outcomes and operational experiences for MSMEs.

Using a descriptive research design, primary data were collected through structured interviews from 115 MSME representatives across northern Indian states. Exploratory Factor Analysis (EFA) was employed to identify the underlying dimensions shaping MSMEs' perceptions of GEM-enabled procurement. The results reveal seven key factors driving MSME adoption and engagement, with process simplification and transparency emerging as the most dominant dimension, followed by accountability and fairness, information reliability and administrative efficiency, accessibility and digital monitoring, information consistency and openness, transparency and monitoring, and competitive and professional procurement practices.

The findings indicate that MSMEs perceive GEM not merely as a technological tool but as an institutional mechanism that reduces bureaucratic discretion, limits corruption, enhances fairness, and expands market access. While the platform significantly improves procurement transparency and efficiency, challenges related to digital readiness and capacity constraints remain, particularly for micro and small enterprises.

The study contributes to the literature by empirically linking E-procurement adoption with good governance outcomes from the perspective of MSMEs—an underexplored stakeholder group in public procurement research. The paper offers targeted policy recommendations aimed at strengthening MSME participation through capacity building, platform refinement, and supportive governance interventions. Overall, the study underscores the transformative potential of GEM in fostering inclusive, transparent, and accountable public procurement, thereby supporting MSME competitiveness and sustainable economic development in India.

Keywords: E-Procurement, MSMEs, Government E-Marketplace, GEM

INTRODUCTION

The perception of Micro, Small, and Medium Enterprises (MSMEs) regarding the E-procurement ecosystem in India is a critical aspect of the country's digital transformation in the procurement and supply chain management sector. E-procurement, short for electronic procurement, refers to the use of technology, particularly the internet, to facilitate and streamline the various processes

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involved in procurement. This includes tasks such as vendor registration, tendering, bid evaluation, purchase order generation, and payment processing, all conducted electronically.

MSMEs play a significant role in the Indian economy, contributing to industrial output, employment generation, and exports. They form the backbone of India's economic landscape, and their involvement in E-procurement can have a profound impact on their growth and sustainability. The Indian government has been actively promoting E-procurement as a means to enhance transparency, efficiency, and cost-effectiveness in public procurement processes. Various central and state-level agencies have adopted E-procurement platforms to conduct their procurement activities. As a result of combined efforts from various quarters more than 8.6 lakh MSMEs registered as sellers/service providers on GEM as on 31 March, 2023. More than 58% of contracts by volume (29 lakh+) were awarded to MSMEs through GEM in FY 2022-23 amounting to a whopping INR 97,370 crore (11.8 bn USD) (6th Annual Report of the [Government e-Marketplace \(2023\)](#)).

Understanding how MSMEs perceive and engage with the E-procurement ecosystem is crucial for policymakers, government authorities, and stakeholders in the public and private sectors. It provides insights into the challenges, opportunities, and readiness of MSMEs to adopt and adapt to digital procurement processes. This perception can help in designing policies and initiatives that are more inclusive, supportive, and tailored to the specific needs of MSMEs.

MSMEs are diverse in nature, ranging from manufacturing units to service providers, and their experiences with E-procurement may vary accordingly. Therefore, it is essential to conduct comprehensive surveys, engage with stakeholders and gather feedback from MSMEs to gauge their perception of the E-procurement ecosystem in India accurately. This understanding can inform policy decisions, investments in infrastructure, and capacity-building programs to ensure the widespread adoption and successful integration of E-procurement in the MSME sector.

The study was carried out with descriptive research design. The target population was the 115 MSME representatives. The study used structured interview schedule to collect data. The study employs Exploratory Factor Analysis (EFA) to identify key dimensions of perceptions of respondents.

The later part of this paper is structured as follows. The next section presents a comprehensive review of literature, setting the study in the theoretical frameworks of the 'diffusion of innovation theory' and 'good governance theory.' The methodology section details the research design, data collection, and analytical techniques used to examine the perceptions of MSME's regarding the Government e-Marketplace (GEM). This is followed by the discussion section, which contextualizes the findings within the theoretical framework and existing literature, and explores their implications. Finally, the paper concludes by summarizing key insights, discussing limitations, and proposing directions for future research.

REVIEW OF LITERATURE

There is fierce debate globally on the issue of impact of E-procurement on MSME sector. A strong set of researchers have depicted positive relationship between E-procurement and procurement process performance and business performance in MSME's [Sánchez-Rodríguez et al. \(2020\)](#), [Mutunga \(2020\)](#), [Madzimore \(2020\)](#), [Boateng \(2021\)](#), [Masuku and Hlongwane \(2022\)](#), [Al Naim and Bhatti \(2022\)](#). It is echoed that with the introduction of E-procurement, it has become easy for small enterprises to access public procurement market [Bromberg and Manoharan \(2015\)](#), [Shakya \(2015\)](#), [Albano et al. \(2015\)](#), [Bobowski and Gola \(2018\)](#), [Pandey \(2019\)](#). There is positive impact on supply chain management performance in MSME organizations [Iqbal et al. \(2023\)](#). [Oshoma et al. \(2024\)](#) have indicated a positive relationship between E-procurement adoption and the business performance of SMEs in terms of procurement operations. The ease of use of E-procurement systems also positively affects SME performance. The adoption of specific E-procurement practices, such as e-ordering, e-invoicing, e-sourcing, and e-payment, is associated with improved SME performance. [Radojicic et al. \(2025\)](#) have stated that there is strong positive correlation of electronic public procurement and increase in broader participation of MSME's.

Another view point generated by set of scholars are that E-procurement have not gone positively well for MSME's. [Asiimbwe \(2012\)](#) has observed that it is a challenge to build and sustain relationships with entities, which are not prepared to go online, and small businesses not enabled for E-procurement. [Fernandes and Vieira \(2015\)](#) have studied benefits and barriers of implementation of Public E-procurement system in construction sector in small and medium enterprises and concluded that technical factors (e.g., language, digital signatures, and electronic platforms) dominate E-procurement barriers to SMEs, while cost related factors (e.g., transaction costs, information processing, time savings) dominate drivers.

Many scholars vented out their opinion that E-procurement hurts small and medium enterprises as they lack the capabilities to adopt E-procurement system [Min and Galle \(2001\)](#), [Albano et al. \(2015\)](#), [Ferreira and Amaral \(2016\)](#), [Bobowski and Gola \(2018\)](#). The main constraints identified under set of capabilities were high cost of implementation and lack of financial support [Williams and Hardy \(2007\)](#), [Gunasekaran et al. \(2009\)](#), [Ferreira and Amaral \(2016\)](#), [Ngatman et al. \(2020\)](#), [Boateng \(2021\)](#), lack of ICT support and facilities [Ngatman et al. \(2020\)](#), [Boateng \(2021\)](#), size of organisation [Williams and Hardy \(2007\)](#), lack of management support [Williams and Hardy \(2007\)](#), [Gunasekaran et al. \(2009\)](#), non-equitable access to public procurement [Williams and Hardy \(2005\)](#), insufficient skills and knowledge [Gunasekaran et al. \(2009\)](#), [Ngatman et al. \(2020\)](#), [Boateng \(2021\)](#), fear and resistance to change [Gunasekaran et al. \(2009\)](#), [Ngatman et al. \(2020\)](#), immature technology [Gunasekaran et al. \(2009\)](#), [Shakya \(2015\)](#), [Boateng \(2021\)](#).

[Makhamara \(2019\)](#) has carried out a study to investigate the influence of E-Tendering on the performance of SMEs in Nairobi City County, Kenya. The study found that E-tendering has a positive but insignificant influence on performance of SMEs but still recommends that small and medium enterprises should adopt and utilize E-tendering to streamline the procurement process and reduce the costs involved.

[Mutunga \(2020\)](#) conducted a study which concludes that E-procurement tools positively impact SMEs' performance in Nairobi County, with varying degrees of significance. E-tendering has a positive but insignificant effect, hindered by the lack of online supplier contract management systems, while E-invoicing significantly enhances performance by improving data security, timeliness, and reducing delays. E-payment also has a significant impact, reducing transaction costs, increasing transparency, and expediting payments, though its effect on profitability and customer satisfaction is moderate. E-sourcing significantly improves cost efficiency and reduces delays but only moderately boosts market share and customer satisfaction. Overall, E-procurement tools drive efficiency and transparency but require system enhancements for greater impact.

[Listyawati et al. \(2023\)](#) observed that E-procurement brings transparency and effectiveness in the supply chain and makes a significant contribution to supply chain performance. In addition, E-procurement also allows companies to measure and monitor orders, such as processing time, order delivery time, and current status. Therefore, the implementation of E-procurement in MSMEs plays an important role and will have an impact on improving supply chain performance in MSMEs.

[Megawati and Nawang \(2023\)](#) observed that E-procurement improves supply chain transparency and effectiveness, and it provides a substantial contribution to supply chain performance. Furthermore, E-procurement enables businesses to measure and monitor order parameters such as processing time, order delivery time, and current status.

Another area explored by researchers is factors affecting adoption of E-procurement in MSME sector. The main factors identified were effort expectancy, performance expectancy, and social influences [Soong et al. \(2020\)](#), [Kit et al. \(2021\)](#). Further factors were employee knowledge, size of an organization, staff retention, and trust on technology and perceptions of manager [Gitonga et al. \(2020\)](#). Technological factors such as fear of security and confidentiality of information, absence of IT infrastructure, lack of support from system vendors and developers and lack of proper needs assessment, lack of technical expertise, and unavailability of E-procurement software were cited [Gitonga \(2021\)](#).

[Hassan et al. \(2017\)](#) have identified factors affecting implementation of E-procurement on basis of two dimensions of breadth and depth. Breadth is affected by perceived relative advantage of using E-procurement, plus external pressure from suppliers and competitors to use E-procurement and external pressure whereas in terms of depth, E-procurement system used in organisation is dependent on compatibility of internal environment which consists of organizational values, practices, technology infrastructure, and strategy.

There have been a few studies on Government e-Marketplace (GEM) in the context of MSMEs in India [Pandey \(2019\)](#), [Buteau \(2021\)](#), [Jha \(2022\)](#). [Pandey \(2019\)](#) has stated that in a short span of two years or so, the GEM platform has opened up market access for micro and small enterprises and entrepreneurs, expanding the number of potential suppliers but due to some institutional bottlenecks and traditional mindset of procurement authorities GEM has not become as popular as it was expected. The Government e-Marketplace has also helped promote entrepreneurship and create new jobs. It has enabled many small entrepreneurs to grow their business. [Buteau \(2021\)](#) suggested that Government e-Marketplace (GEM) has been included in digital technology while addressing concerns of MSMEs. GEM provides MSME's transparent access to government procurement. He further states that such a step allows the government to experiment and learn about how the MSMEs engage with complex procurement designs and thereby make the open network for digital commerce (ONDC) more robust in terms of designing its cataloguing, payments gateway, logistics and grievance redressal. He observed that MSME's face certain constraints due to their divergent requirements and their lack of investment in digital technologies. This stems from a resistance in adopting digital technologies, which is further associated with their lack of understanding, capacities, and capabilities. He presented data of GEM portal. As per the official GEM portal (Nov 2021), one-fourth of the sellers on the portal are MSMEs accounting for more than 55% of the total order value. As per paper, this is a commendable feat, reached in a span of close to five years since the launch of the portal. Nonetheless, there is a need to increase the absolute number of MSMEs that participate in the portal. At a little over 7 lakh MSMEs participating, it is a mere 1% of the total 6 crore MSMEs in India. There is thus an evident need to ensure that a large majority of MSMEs are informed and onboarded to the platform. [Jha \(2022\)](#) has observed that MSME sector has got a fillip with the introduction of GEM in India. It offers the buyers with an option to handpick only MSMEs through special filters on the portal and select a seller amongst them. It has helped government departments in significantly increasing the share of purchases from MSME in their total procurement of goods and services.

The adoption of E-procurement platforms, such as the Government e-Marketplace (GEM) in India, has significantly altered the public procurement landscape, aiming to enhance transparency, efficiency, and fairness. Most studies on E-procurement focus on large enterprises or government agencies, often neglecting the smaller business segment's experiences and challenges. While several studies highlight the general benefits of E-procurement, there is insufficient analysis on actual experiences of MSMEs with respect to GEM platform, including technological, financial, and regulatory hurdles. Further they often fall short of providing concrete recommendations and suggestions specifically targeted at supporting MSMEs. Our study aims to fill these gaps by providing a comprehensive analysis of MSMEs' perceptions of the E-procurement ecosystem, identifying challenges and opportunities, assessing

user experiences, and evaluating the impact on MSME competitiveness. It offers targeted recommendations for enhancing MSME participation in the digital procurement landscape in India.

THEORETICAL FRAMEWORK

This study is set in the theoretical frameworks of the Diffusion of Innovation Theory and Good Governance Theory to study the impact of E-procurement platform - Government e-Marketplace (GEM) - on fostering Good Governance in MSME Sector. The Diffusion of Innovation Theory explains how new ideas, practices, or technologies spread within a social system over time. Rogers (1962) first introduced this theory to study the adoption of new technologies and behaviours, including by businesses such as MSMEs. It is relevant to MSMEs in the sense that they may adopt innovations like E-procurement based on perceived benefits such as cost savings, transparency, and operational efficiency to enhance consumer satisfaction. Good Governance Theory underscores the principles of transparency, accountability, efficiency, and fairness as critical benchmarks for evaluating governance reforms. GEM 's design aligns with these principles by reducing corruption, ensuring equal access to procurement opportunities, and fostering competitive markets.

METHODOLOGY

This is a primary study of MSMEs in India that have adopted Government e-Marketplace platform for procurement. The Micro, Small and Medium Enterprises abbreviated as MSMEs are defined according to the number of employees, annual turnover, and the balance sheet total. It varies from one country to another. In India, MSMEs criteria for classification are as under¹:

A micro enterprise, where the investment in Plant and Machinery or Equipment does not exceed one crore rupees and turnover does not exceed five crore rupees, (ii) A small enterprise, where the investment in Plant and Machinery or Equipment does not exceed ten crore rupees and turnover does not exceed fifty crore rupees, (iii) A medium enterprise, where the investment in Plant and Machinery or Equipment does not exceed fifty crore rupees and turnover does not exceed two hundred and fifty crore rupees.

This study adopts a descriptive research design with focus on key governance-related variables in E-procurement, including transparency, accountability, efficiency & effectiveness, corruption control, and ease of doing business. These variables are examined to understand their role in fostering good governance through E-procurement practices. The study's target population consists of individuals working within the MSME sector in India. A non-probability purposive sampling technique was used to identify and select participants who have experience and familiarity with the E-procurement ecosystem. The respondents were from Northern Indian States of Punjab, Haryana, Himachal Pradesh, Jammu & Kashmir, Chandigarh, and Delhi. A total of 115 structured interviews were conducted with MSME respondents, ensuring representation from various sectors within the MSME category. The selection was based on the active participation of respondents in E-procurement processes. Data were collected through structured interviews, utilizing a pre-designed interview schedule consisting of 41 questions. The interview schedule was designed based on an extensive literature review and in consultation with experts in E-procurement and public policy. These questions were developed to gather in-depth perceptions of MSME respondents about their experience with GEM and how effectively have they adopted the E-procurement. The structured interview format allowed for consistency in data collection while enabling participants to express their experiences and perceptions. Table 1 shows the sample characteristics. Table 2 depicts the number of micro, small and medium firms in the sample.

Table 1

Table 1 Demographic Characteristics of Respondents		
	Number of Respondents	Percentage
Age		
25-35	30	26.1
35-45	44	38.2
Above 45	41	35.7
Gender		
Male	108	93.9
Female	7	6.1
Educational Qualification		
Matric	2	1.7

¹ Ministry of Micro, Small and Medium Enterprises Notification New Delhi, the 1st June, 2020 S.O. 1702(E).

Higher Secondary	10	8.7
Graduate	58	50.4
Post Graduate	41	35.7
Any other	4	3.5
Stream of Education		
Commerce	50	43.5
Humanities	16	13.9
Science	35	30.4
Any other	14	12.2
Experience of E-procurement		
Up to 8 years	38	33
8-15 years	34	29.6
More than 50 years	43	37.4

Table 2

Table 2 Breakup of MSMEs Based on Turnover				
S. No.	Turnover	Category	Number	Percentage
1	1-5 Cr	Micro	45	39.1
2	5-50 Cr	Small	45	39.1
3	50-250 Cr	Medium	25	21.8
Total			115	100

Exploratory Factor Analysis (EFA) was conducted using Principal Component Analysis (PCA) as the extraction method, with Varimax rotation applied to achieve a clearer and more interpretable factor structure. The Rotated Component Matrix was utilized to identify the variables with the highest loadings on each factor, ensuring that the underlying dimensions were well-defined and distinct.

ANALYSIS AND FINDINGS

In order to better understand the dimensions what determine the adoption of E-procurement platform GEM in India by the MSMEs, exploratory factor analysis (EFA) was applied. The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity confirm the suitability of the dataset for factor analysis.

The KMO value of 0.908 indicates excellent sampling adequacy, suggesting that the variables are highly interrelated and appropriate for dimensionality reduction. Bartlett's Test of Sphericity, with an approximate Chi-Square value of 3666.071, degrees of freedom (df) of 820, and a significance level of 0.000, demonstrates that the correlation matrix is not an identity matrix and that sufficient correlations exist among the variables. These results collectively validate that the dataset meets the requirements for conducting factor analysis effectively. Table 3 presents exploratory factor analysis of perception of all the respondents regarding E-procurement through GEM in India.

FACTORS DETERMINING MSME'S E-PROCUREMENT THROUGH GEM IN INDIA

Based on EFA, following seven dimensions determine the adoption of GEM by the MSME respondents. The factors have been named as per the items representing the dimension:

- 1) Process Simplification and Transparency:** It emerges as the most important dimension explaining 47.606 % of the variance. This factor suggests that the GEM platform is perceived to simplify processes by eliminating intermediaries, reducing bureaucratic obstacles, and minimizing opportunities for manipulation and corruption in procurement activities. This results in increased transparency, accountability, and lower transaction costs. It includes items like 'There are adequate checks and balances to ensure buyers don't select specific vendors by selecting specific quality requirement (QRs)', 'GEM has reduced opportunities for officials to subvert the procurement process for private gains', 'GEM has reduced favouritism in procurement activity', 'There is reduction of bid rigging after implementation of GEM in procurement activity', 'There is

reduction of lobbying in procurement activity after implementation of GEM', 'GEM has reduced red- tapism in procurement process'.

- 2) **Accountability and Fairness:** It is second most important factor which explains 5.683 % variance. This factor is centred on fair competition, professionalism, and increased accountability. MSMEs perceive that GEM has established a level playing field, minimizing fraud, and promoting more accurate and accountable procurement processes on both the buyer and seller sides.

Table 3

Table 3 Result of Exploratory Factor Analysis (Total Sample, N=115)

Factor Number	Name of Dimension (% of Variance)	Item Code	Factor Loading	Communality	Cronbach Alpha
1	Process Simplification and Transparency (47.606)	CC2	0.669	0.690	0.940
		CC5	0.662	0.741	
		CC7	0.658	0.704	
		CC10	0.657	0.618	
		EE7	0.645	0.637	
		CC6	0.610	0.748	
		CC4	0.598	0.713	
		EB1	0.579	0.638	
		CC9	0.502	0.627	
		CC11	0.466	0.651	
		TR3	0.441	0.708	
2	Accountability and Fairness (5.683)	EB10	0.771	0.731	0.896
		AC1	0.744	0.728	
		EE1	0.735	0.725	
		CC1	0.717	0.701	
		EE6	0.590	0.694	
		AC3	0.580	0.546	
		AC4	0.550	0.653	
3	Information Reliability and Administrative Efficiency (3.814)	EB3	0.715	0.753	0.902
		EB8	0.617	0.646	
		EE9	0.596	0.638	
		EB11	0.591	0.656	
		EE2	0.565	0.732	
		EE3	0.491	0.653	
		EE5	0.489	0.689	
4	Accessibility and Digital Monitoring (3.625)	EB9	0.713	0.655	0.848
		TR4	0.601	0.660	
		CC8	0.600	0.735	
		TR2	0.547	0.695	
		EB6	0.473	0.81	
5	Information Consistency and Openness (3.147)	EB7	0.612	0.670	0.783
		EB5	0.609	0.603	
		TR6	0.555	0.712	
		EB2	0.530	0.561	

		EE8	0.514	0.737	
6	Transparency and Monitoring (2.706)	TR5	0.676	0.793	0.811
		TR1	0.504	0.784	
		EE4	0.474	0.683	
		AC2	0.462	0.635	
7	Competitive and Professional Procurement (2.542)	CC3	0.760	0.765	0.738
		EB4	0.544	0.745	

It consists of items like 'GEM ensures fair competition in procurement activities,' 'There is an increase in accountability of procurement officials after implementation of GEM,' 'GEM has enhanced professionalism in public procurement,' 'GEM has led to reduction in the scope for fraud in procurement.'

- 3) **Information Reliability and Administrative Efficiency:** This is another factor which explains 3.814 % of variance. This factor focuses on the reliability of information and administrative efficiency provided by the GEM platform. MSMEs believe that accurate product specifications, streamlined processes, and reduced manpower requirements have enhanced procurement activities' effectiveness. It includes items like, 'GEM provides adequate product specifications to ensure the right product is supplied,' 'GEM provides timely information,' 'GEM has resulted in a reduction in the administrative burden on procurement officials,' 'GEM has led to an increase in reliability in procurement activity.'
- 4) **Accessibility and Digital Monitoring:** This factor explains 3.625 % of variance. This factor reflects perceptions of improved accessibility and digital monitoring capabilities through the GEM platform. MSMEs see GEM as enabling greater geographical reach, an open market environment, and transparent, traceable transactions through digital means. It consists of items like, 'GEM has improved reach across the country,' 'GEM has led to the creation of an open market,' 'GEM has led to faceless procurement activity.'
- 5) **Information Consistency and Openness:** This factor explains 3.147 % of variance. This factor emphasizes the consistency of information and open access to procurement guidelines. MSMEs find that the GEM platform provides equal access to data, decreases paperwork, and enhances the predictability of procurement activities. It includes items like, 'GEM provides reliable information,' 'GEM has increased buying and selling avenues,' 'GEM has led to an increase in accessibility to procurement guidelines.'
- 6) **Transparency and Monitoring:** This factor explains 2.706 % of variance. This factor reflects the transparency and monitoring abilities introduced by GEM, leading to a more streamlined and trackable procurement environment. It consists of items like, 'GEM has created transparency in procurement activity.' 'There is a reduction in lead time in procurement activity after the introduction of GEM,' 'GEM has led to improved monitoring of the procurement system.'
- 7) **Competitive and Professional Procurement:** This factor explains 2.542 % of variance. This factor emphasizes GEM 's role in promoting competitive and professional procurement practices by reducing vendor collusion and improving supply chain mana GEM ent. It includes items like, 'GEM has reduced collusion among vendors in the procurement process,' 'There is improvement in supply chain mana GEM ent performance after implementation of GEM.'

These factors indicate that the GEM platform is perceived positively by MSMEs, with an emphasis on transparency, accountability, cost reduction, efficiency, and the elimination of corrupt practices

DISCUSSION

The findings of this study provide strong empirical support for the argument that digital procurement platforms such as the Government e-Marketplace (GEM) play a pivotal role in fostering good governance within the MSME sector in India. Anchored in the Diffusion of Innovation Theory and Good Governance Theory, the results reveal that MSMEs largely perceive GEM as an enabler of transparency, accountability, efficiency, and fairness in public procurement.

The most dominant factor—Process Simplification and Transparency—explains nearly half of the total variance, underscoring that MSMEs experience GEM primarily as a governance reform tool rather than merely a technological innovation. This aligns closely with Good Governance Theory, which emphasizes the reduction of red-tapism, corruption, favouritism, and discretionary power in public administration. The perception that GEM minimizes bid rigging, lobbying, and bureaucratic delays suggests that digitalization has effectively curtailed traditional rent-seeking behaviours often associated with public procurement. This finding corroborates earlier studies that argue e-procurement enhances transparency and reduces procurement-related corruption [Pandey \(2019\)](#), [Shakya \(2015\)](#).

The second factor, Accountability and Fairness, highlights MSMEs' belief that GEM creates a level playing field by ensuring fair competition and increasing the accountability of procurement officials. This is particularly significant for smaller firms that historically faced disadvantages in accessing government procurement due to informational asymmetries and institutional bias. From a diffusion perspective, the perceived fairness and professionalism of the platform enhance its relative advantage, thereby encouraging continued adoption and deeper engagement by MSMEs.

Factors such as Information Reliability and Administrative Efficiency and Accessibility and Digital Monitoring further reinforce the role of GEM in improving operational effectiveness. MSMEs acknowledge that accurate product specifications, timely information dissemination, and reduced administrative burden have streamlined procurement processes. These perceptions resonate with prior research highlighting the efficiency gains and transaction cost reductions associated with e-procurement adoption [Mutunga \(2020\)](#), [Iqbal et al. \(2023\)](#). Additionally, the perception of faceless procurement and nationwide reach suggests that GEM has expanded market access beyond geographical constraints, which is particularly beneficial for MSMEs located in semi-urban and rural regions.

The emergence of factors related to Information Consistency, Transparency and Monitoring, and Competitive and Professional Procurement indicates that MSMEs recognize GEM as a mature digital ecosystem that promotes predictability, compliance, and professionalism. These dimensions reflect not only functional efficiency but also institutional trust in the procurement system—an essential condition for sustained digital adoption under the Diffusion of Innovation Theory.

While earlier literature often emphasized MSMEs' constraints and resistance toward e-procurement, the present study demonstrates a perceptible shift in attitudes. MSMEs increasingly view GEM as a governance-enhancing platform that improves market access, reduces discretionary practices, and strengthens supply chain performance. However, the dominance of governance-related dimensions also suggests that MSMEs value institutional credibility and fairness even more than technological sophistication.

RECOMMENDATIONS

Based on the empirical findings and the dimensions identified through Exploratory Factor Analysis, the following targeted recommendations are proposed for policymakers, platform administrators, and MSME stakeholders:

- 1) Strengthen Digital Capacity Building for MSMEs:** Despite positive perceptions, challenges related to digital literacy and technological readiness persist. The government should introduce structured, region-specific training programs focusing on platform navigation, bid preparation, compliance requirements, and digital documentation. Special emphasis should be placed on micro enterprises, which often lack in-house technical expertise.
- 2) Enhance Platform Usability and Support Mechanisms:** Continuous improvement in user interface design, multilingual support, and real-time assistance through helpdesks or AI-driven chat support can further improve accessibility and user confidence. Simplifying compliance-related procedures will reduce entry barriers for first-time MSME users.
- 3) Institutionalize Feedback and Grievance Redressal Systems:** While transparency and monitoring are positively perceived, MSMEs would benefit from faster and more responsive grievance redressal mechanisms. Strengthening feedback loops can enhance trust, improve platform responsiveness, and encourage deeper participation.
- 4) Promote Awareness and Outreach Programs:** Given that a relatively small proportion of India's MSMEs are currently active on GEM, targeted awareness campaigns through industry associations, chambers of commerce, and MSME development institutes can significantly expand adoption. Success stories of MSMEs benefiting from GEM should be actively disseminated.
- 5) Policy Incentives for MSME Participation:** Policymakers may consider preferential onboarding support, reduced transaction fees, or simplified compliance norms for micro and small enterprises. Such incentives can accelerate diffusion and ensure more inclusive participation in public procurement.
- 6) Data-Driven Monitoring and Policy Refinement:** The government should leverage GEM's digital data to monitor MSME participation trends, identify sector-specific bottlenecks, and design evidence-based interventions. This will ensure that governance reforms remain adaptive and responsive.

CONCLUSION

This study offers a comprehensive empirical assessment of MSMEs' perceptions of the Government e-Marketplace (GEM) as an E-procurement platform in India. By applying Exploratory Factor Analysis within the frameworks of Diffusion of Innovation Theory and Good Governance Theory, the research identifies seven key dimensions that shape MSME engagement with digital procurement.

The findings clearly indicate that MSMEs perceive GEM as a transformative governance mechanism that enhances transparency, accountability, efficiency, and fairness in public procurement. Process simplification, reduced corruption, improved accessibility, and professionalized procurement practices emerge as the most significant benefits. These outcomes suggest that GEM has moved beyond being a transactional platform to become an institutional reform instrument that strengthens trust and inclusivity in government procurement.

At the same time, the study underscores the need for sustained policy support, capacity building, and platform refinement to address persistent digital and infrastructural constraints faced by MSMEs. The positive perceptions documented in this research indicate a favourable environment for deeper diffusion of E-procurement, provided that targeted interventions are implemented.

Thus, the Government e-Marketplace represents a critical pillar in India's digital governance architecture. By fostering transparent and competitive procurement ecosystems, GEM has the potential to significantly enhance MSME competitiveness, promote inclusive economic growth, and strengthen good governance outcomes. The insights from this study contribute meaningfully to the literature on E-procurement and provide actionable guidance for policymakers and practitioners seeking to maximize the developmental impact of digital procurement reforms in India.

While the study highlights significant insights into MSMEs' perceptions of E-procurement, it is limited by its focus on a single platform, GEM. Future research could expand the analysis to include a comparison with traditional procurement methods or other E-procurement platforms. Longitudinal studies may also provide deeper insights into how perceptions evolve over time as MSMEs become more accustomed to digital procurement systems.

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